

## REPORT ON OIL ENGINE MACHINERY.

No. 27793<sup>6</sup>

Received at London Office

FEB - 2 1939

Date of writing Report 20-1-1939 When handed in at Local Office

19. Port of

Rotterdam

No. in Survey held at Alblasdam  
Reg. Book.

Date, First Survey 9-9-30 Last Survey 21-1-1939

Number of Visits 4

on the <sup>Single</sup>  
<sup>Twin</sup>  
<sup>Triple</sup>  
<sup>Quadruple</sup> Screw vessel motor ships

"SCOTTISH CO-OPERATOR"

Tons { Gross 302.24  
Net 247.74

Built at Alblasdam. By whom built N. Indus. Werks. "de Noord" Yard No. 274 When built 1930-39.

Engines made at Stockholm By whom made A.B. Atlas Diesel. Engine No. 85599 When made 1930-39.

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 960. Owners Scottish Co-operative Wholesale Society Ltd. Port belonging to Leith.

Nom. Horse Power as per Rule 100. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes.

Trade for which vessel is intended

OIL ENGINES, &amp;c.—Type of Engines please see Stockholm rep. 4781. 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure Is there a bearing between each crank

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

Revolutions per minute 250. Flywheel dia. Weight Means of ignition Kind of fuel used diesel oil

Crank Shaft, { Solid forged  
Semi built dia. of journals as per Rule  
All built as fitted Crank pin dia. Crank Webs Mid. length breadth shrunk Thickness parallel to axis  
Mid. length thickness Thickness around eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted 165 mm. Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule Screw Shaft, diameter as fitted 100 mm. Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the

propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft Yes If so, state type of propeller London Length of Bearing in Stern Bush next to and supporting propeller 736 mm

Propeller, dia. 2250 mm. Pitch 1797 mm. No. of blades 4 Material bronze whether Moveable solid Total Developed Surface sq. feet

Method of reversing Engines compressed air. Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

forger. Thickness of cylinder liners Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. 2. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. 1 Diameter 100 mm. Stroke 140 mm. Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size 2 à 65 l/h.  
How driven electrically

Is the cooling water led to the bilges no. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements

Ballast Pumps, No. and size 2 à 65 l/h. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2. 350 l/h.

Are two independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces 5.4 à 2 1/2" 1 à 3" (30 2 1/2" in plan) In Pump Room

In Holds, &amp;c. Port 3 à 2 1/2" Starb 3 à 2 1/2" forepeak 1 à 2 1/2" ballast 1 à 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 à 3" 1 à 2 1/2"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes. Are the Bilge Suctions in the Machinery Spaces

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship Yes. Are they fitted with Valves or Cocks Valves.

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes. Are the Overboard Discharges above or below the deep water line above.

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes. Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks Have they been tested as per Rule

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

compartment to another Yes Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. one No. of stages 2 Diameters 125-110 mm. Stroke 75 mm. Driven by electrically

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers aux. engine room starting Driven by

Scavenging Air Pumps, No. Diameter Stroke

Auxiliary Engines crank shafts, diameter as per Rule Amstuden rep No. 15404 A.B. No. Position 2 portside and one starboard engine room

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes.



**AIR RECEIVERS:**—Have they been made under survey

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

**IS A DONKEY BOILER FITTED?**

Is the donkey boiler intended to be used for domestic purposes only

**PLANS.** Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

1-2-38

Receivers

Separate Fuel Tanks

11-4-38.

Donkey Boilers

General Pumping Arrangements

23-5-38

Pumping Arrangements in Machinery Space

23-5-38

Oil Fuel Burning Arrangements

23-5-38.

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

as per list.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

9-12-23/9 - 2/11-38.

12-17-21/1-39.

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

23-9-38

Stern tube

23-9-38

Engine seatings

23-9-38

Engines holding down bolts

12-1-39.

Completion of fitting sea connections

23-9-38.

Completion of pumping arrangements

12-1-39

Engines tried under working conditions

14-1-39.

Crank shaft, Material

Identification Mark

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

Intermediate shafts, Material S M Steel

Identification Marks

Flags No 1651 JSH.CB.9-9-38. not.

Tube shaft, Material

Identification Mark

Screw shaft, Material

S M Steel

Identification Mark

JSH.CB.9-9-38.

Identification Marks on Air Receivers

Flags do

No 8554 - 8553.

W.P. 2.5 Kg/cm<sup>2</sup>

29-9-38.

Is the flash point of the oil to be used over 150° F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case

If so, state name of vessel

**General Remarks**

(State quality of workmanship, opinions as to class, &c.)

The machinery has been made and fitted in accordance with the approved plans. Secretary's letters and Society's Rules. Main and aux. engines and centrifugal pumps have been tested under full working condition and was found working and manoeuvring satisfactorily and in my opinion eligible for the record of L.M.C. 1-39. bil engines. O.G.

The amount of Entry Fee

£ 36.00

When applied for,

Special

1/3

£ 108.00

31.1.1939

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any)

£

15.00

15.2.1939

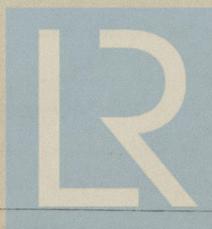
Committee's Minute

Assigned

+ Lmb 1.39 oil eng.

TUE 21 FEB 1939

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation